

What is claimed is:

1. A leader block rotary mechanism for a cartridge magnetic tape device, comprising:

a leader block having a hook part for capturing a leader pin of a magnetic tape housed in a cartridge;

5 a leader block picker for capturing the leader pin onto the hook part by holding and rotating the leader block set in a position for capturing the leader pin;

a rotator lever integrally rotating with the leader block picker;

10 a rotator cam for driving to rotate the rotator lever; and

a loader cam gear for driving to rotate the rotator cam, wherein:

the rotator cam, while comprising an over-rotation limiting  
15 device, is constantly energized to rotate in the direction where the leader pin is released from the hook part so as to give torque to the rotator lever in the release direction;

the over-rotation limiting device transmits the torque of the rotator cam in the capture direction to the rotator lever  
20 and also allows rotation of the rotator cam while keeping the rotator lever, the leader block picker and the leader block at the rotation end position; and

the loader cam gear, by forward rotation, rotates the

rotator cam in the capture direction in resistance to the torque  
25 given to the rotator cam in the release direction.

2. The leader block rotary mechanism for a cartridge magnetic tape device, as claimed in claim 1, wherein the loader cam gear is provided with a function of, by reverse rotation, forcibly rotating the rotator cam in the release direction.

3. The leader block rotary mechanism for a cartridge magnetic tape device, as claimed in claim 1, wherein the rotator cam comprises:

a first projection engaging with a projection in the tip  
5 of the rotator lever from the direction of releasing the rotator lever;

the over-rotation limiting device mounted on the rotator cam for holding the projection in the tip of the rotator lever along with the first projection by being elastically engaged  
10 with the projection of the rotator lever from the capture direction of the rotator lever; and

a second projection slidably in contact with the loader cam gear.

4. The leader block rotary mechanism for a cartridge magnetic tape device, as claimed in claim 1, wherein the loader cam gear comprises a capture cam which comes to be slidably in

contact with the second projection by forward rotation of the  
5 loader cam gear so as to rotate the rotator cam in the capture  
direction.

5. The leader block rotary mechanism for a cartridge  
magnetic tape device, as claimed in claim 4, wherein the loader  
cam gear comprises a release cam which comes to be slidably  
in contact with the second projection by reverse rotation of  
5 the loader cam gear so as to rotate the rotator cam in the  
release direction.

6. The leader block rotary mechanism for a cartridge  
magnetic tape device, as claimed in claim 5, wherein the rotator  
cam is so formed that the second projection is set in a rotating  
position capable of abutting onto the release cam at the stage  
5 where the first projection comes to be in contact in the first  
place with the projection in the tip of the rotator lever from  
the rotation direction at the time of release.

7. The leader block rotary mechanism for a cartridge  
magnetic tape device, as claimed in claim 1, wherein the  
over-rotation limiting device is formed with a helical torsion  
coil spring whose coil part is supported on the rotation center  
5 of the rotator cam and one end is fixed to the rotator cam.